



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

May 22, 2014

Public Health & Emergency Preparedness Bulletin: # 2014:20 Reporting for the week ending 05/17/14 (MMWR Week #20)

CURRENT HOMELAND SECURITY THREAT LEVELS

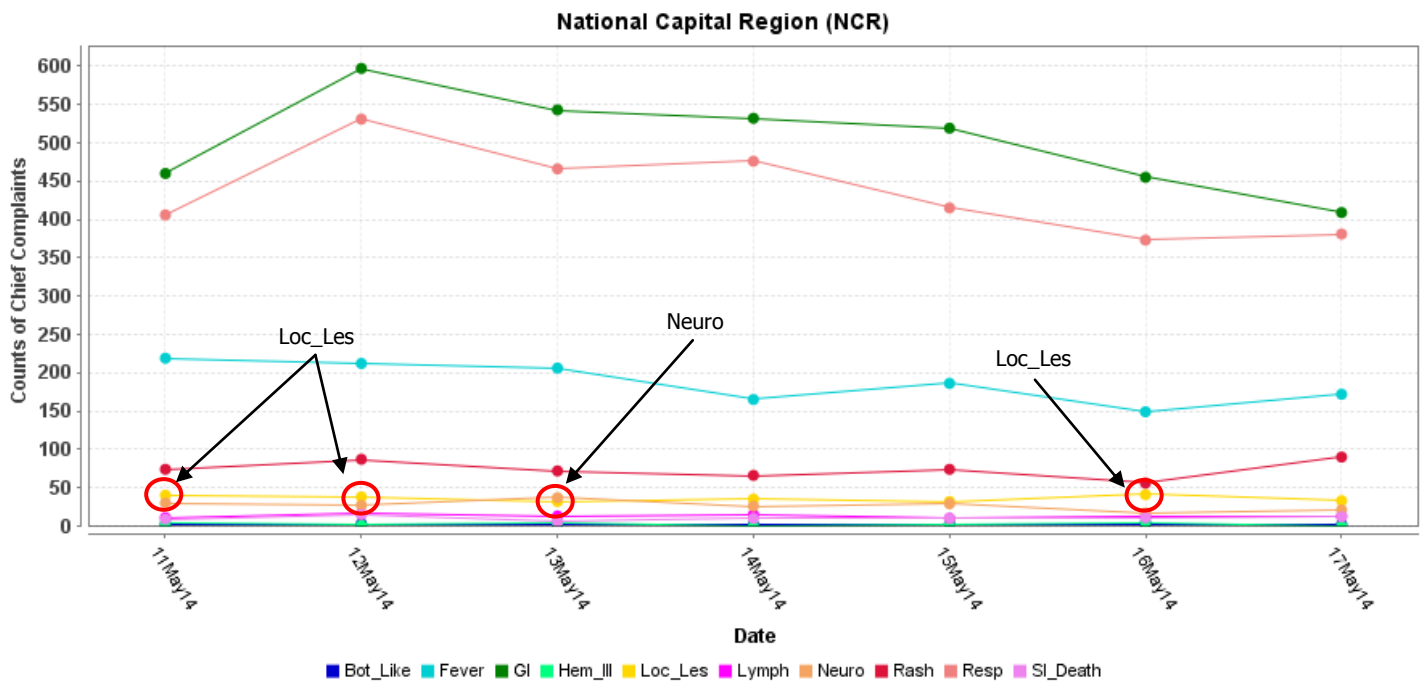
National: No Active Alerts
Maryland: Level Four (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

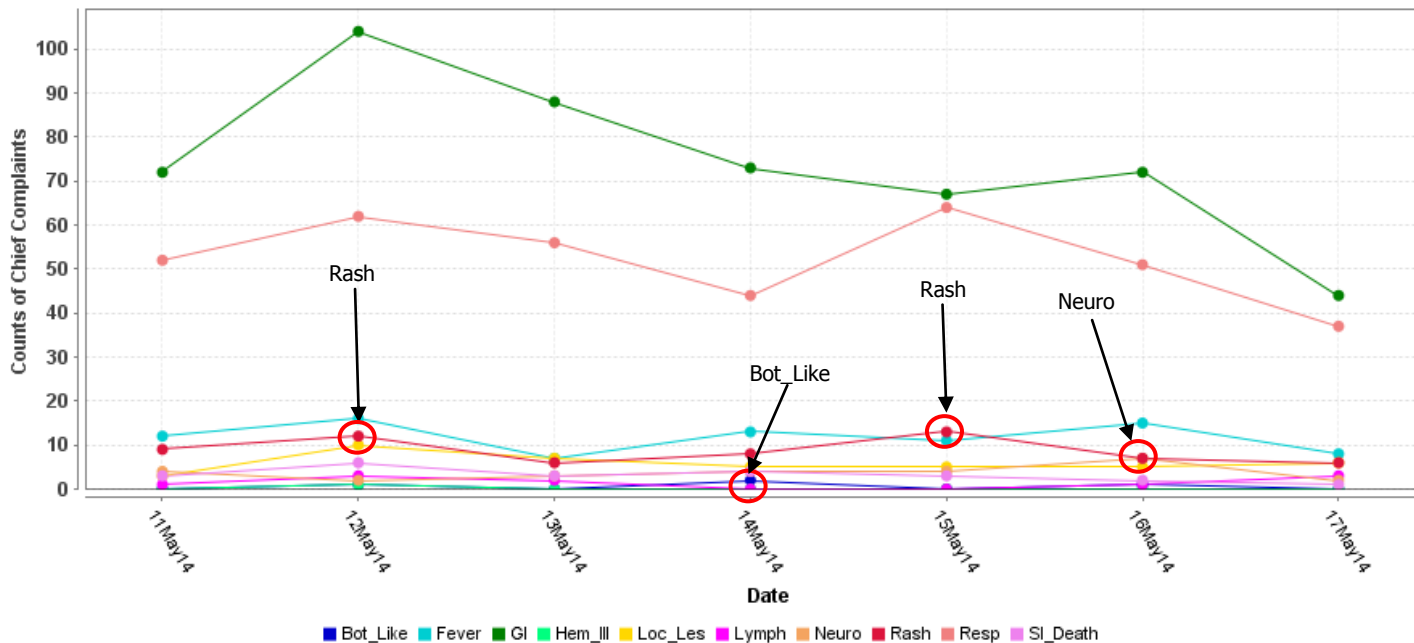
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

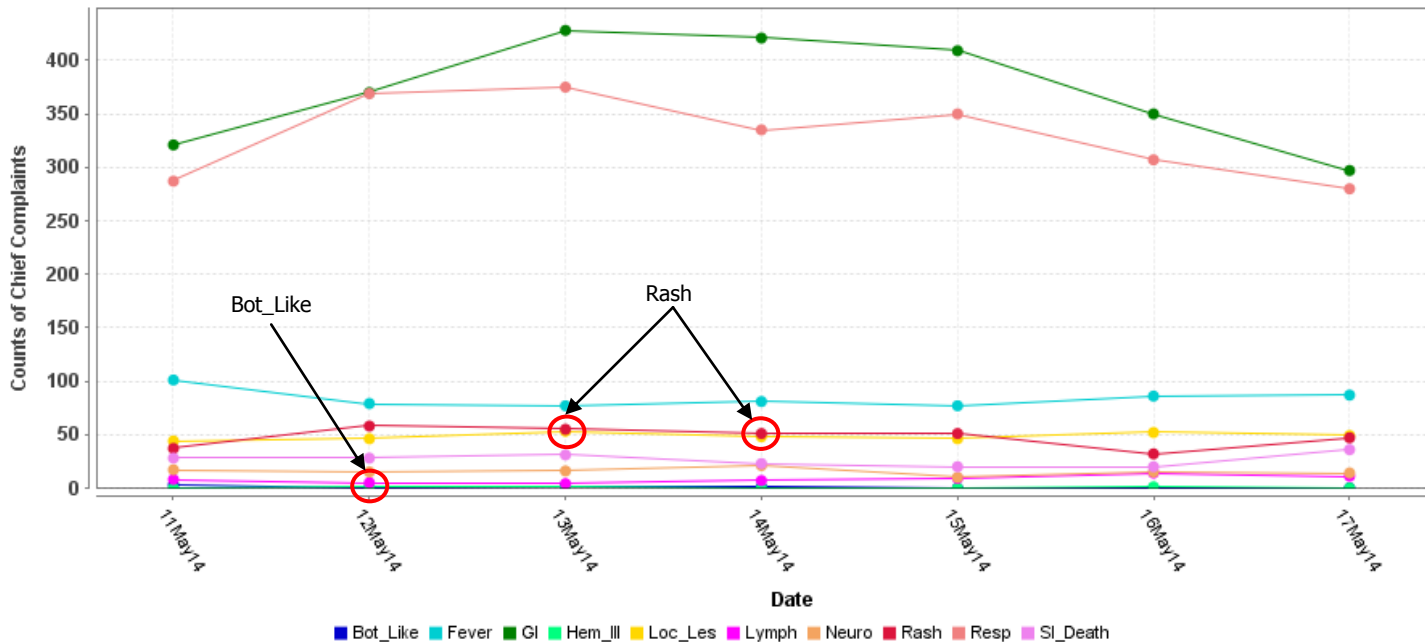
MARYLAND ESSENCE:

Maryland Regions 1 and 2

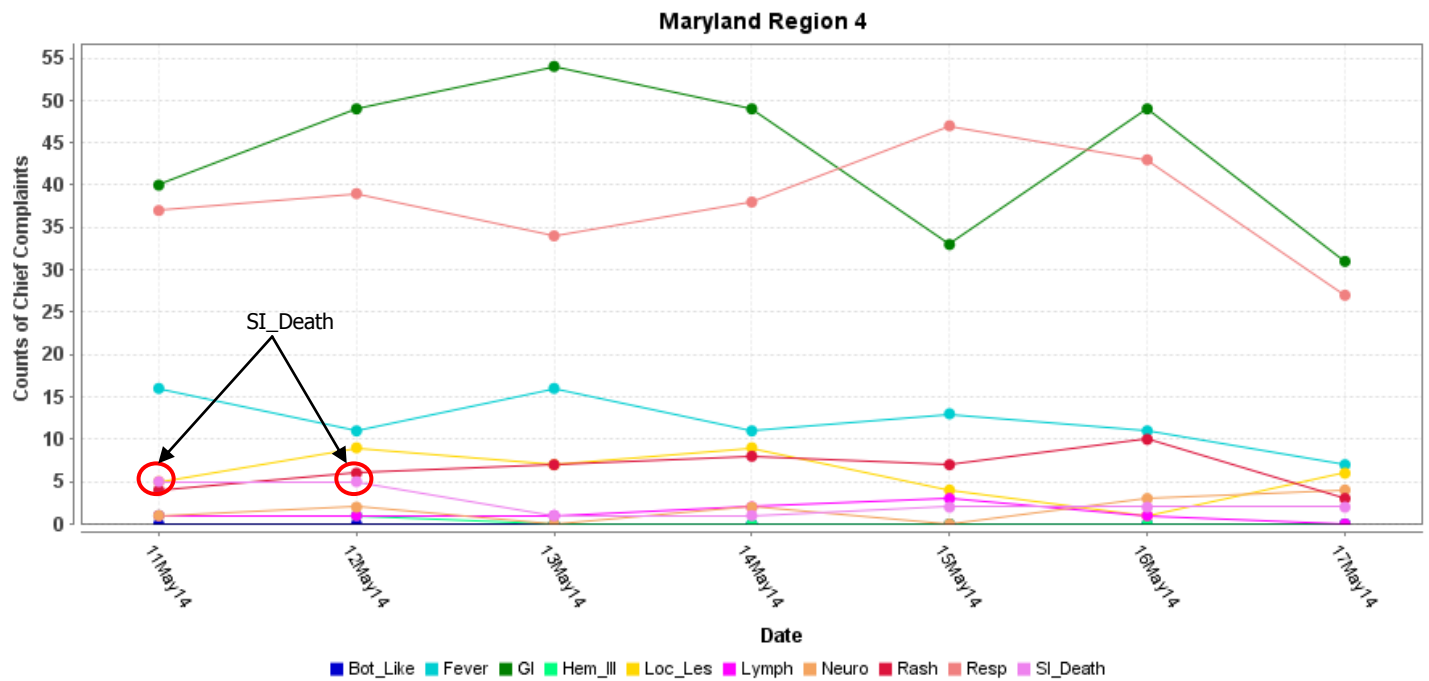


* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE

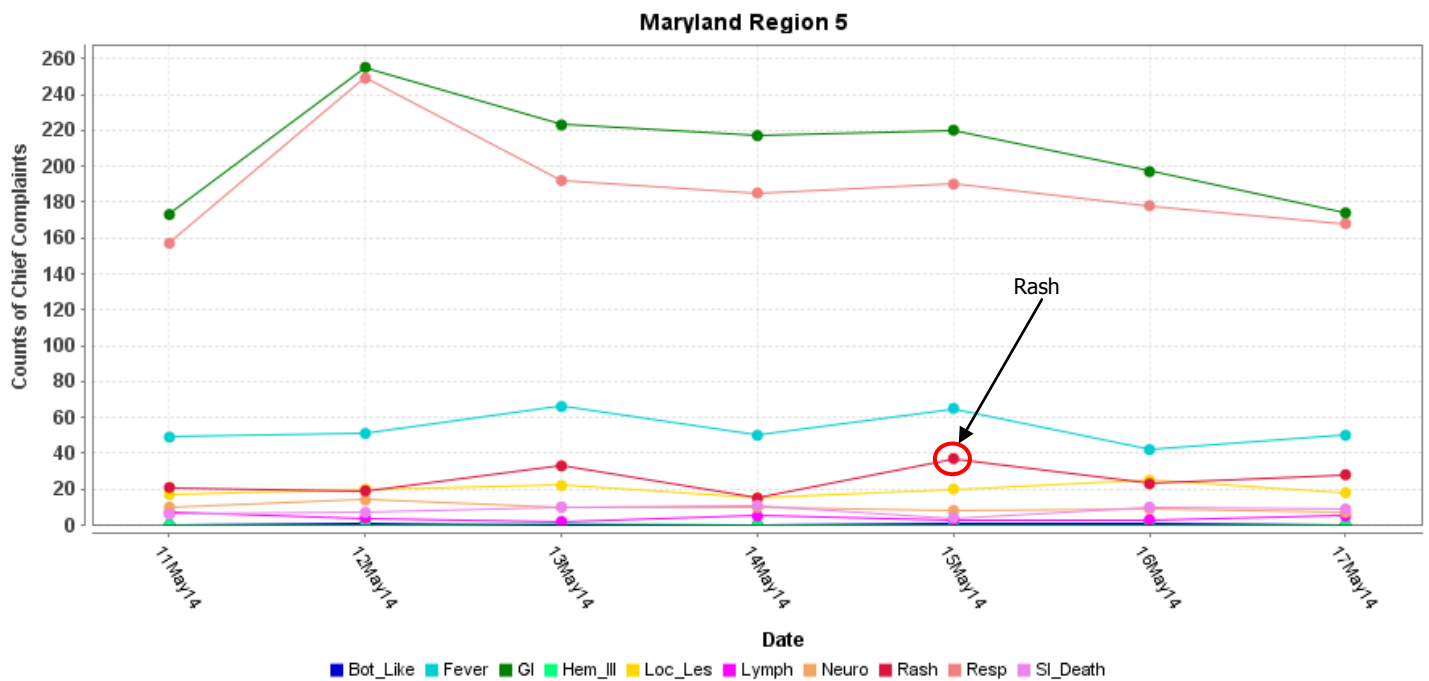
Maryland Region 3



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

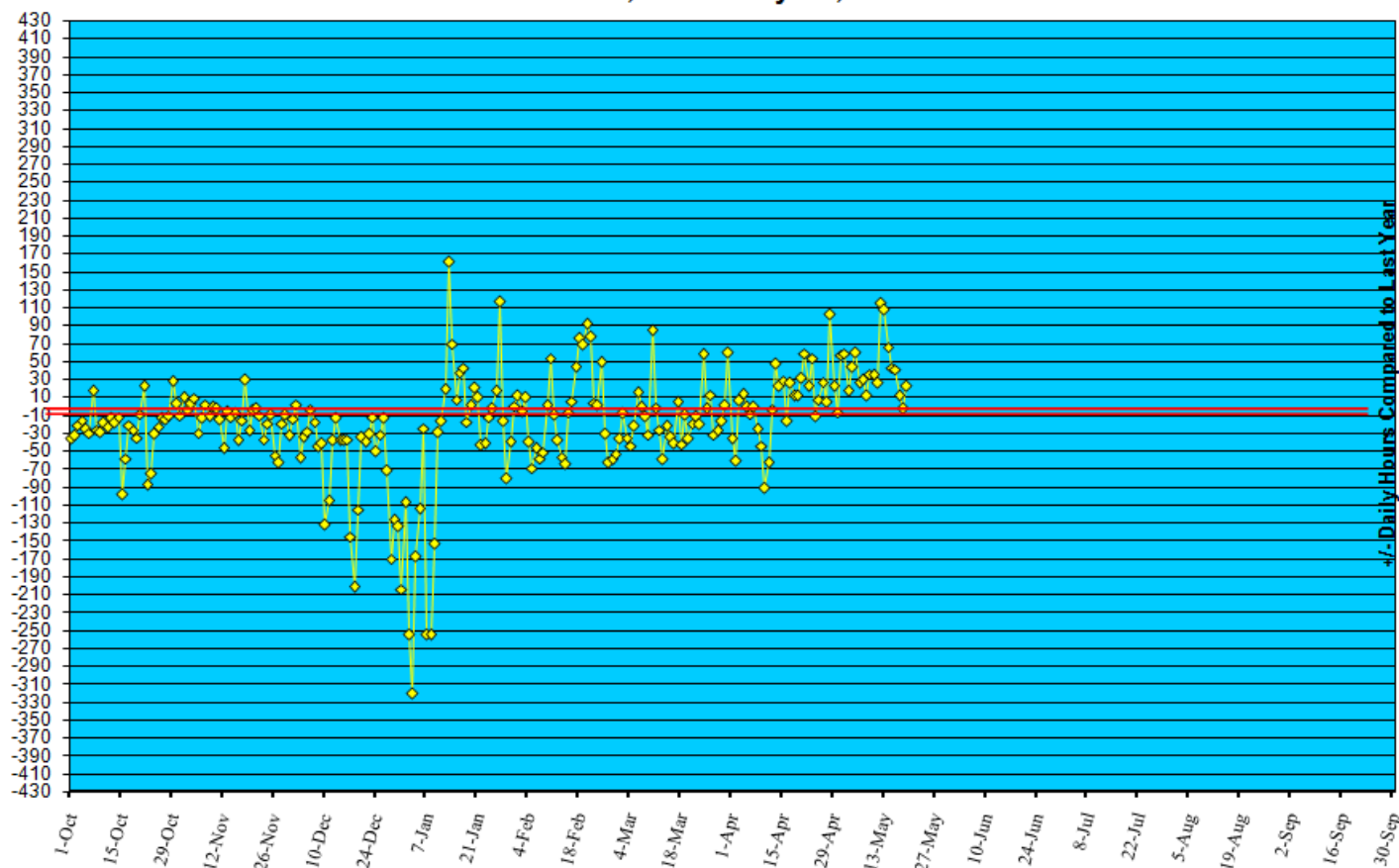


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/13.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '13 to May 17, '14**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in April 2014 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (May 11 - May 17, 2014):	4	0
Prior week (May 4 - May 10, 2014):	11	0
Week#20, 2013 (May 12 - May 18, 2014):	10	0

8 outbreaks were reported to DHMH during MMWR Week 20 (May 11 - May 17, 2014)

3 Gastroenteritis Outbreaks

3 outbreaks of GASTROENTERITIS in Nursing Homes

1 Foodborne Outbreak

1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

3 Respiratory Illness Outbreaks

1 outbreak of INFLUENZA in a Nursing Home

1 outbreak of INFLUENZA/PNEUMONIA in a Nursing Home

1 outbreak of LEGIONELLOSIS associated with an Apartment Building

1 Other Outbreak

1 outbreak of PINWORMS associated with a Daycare Center

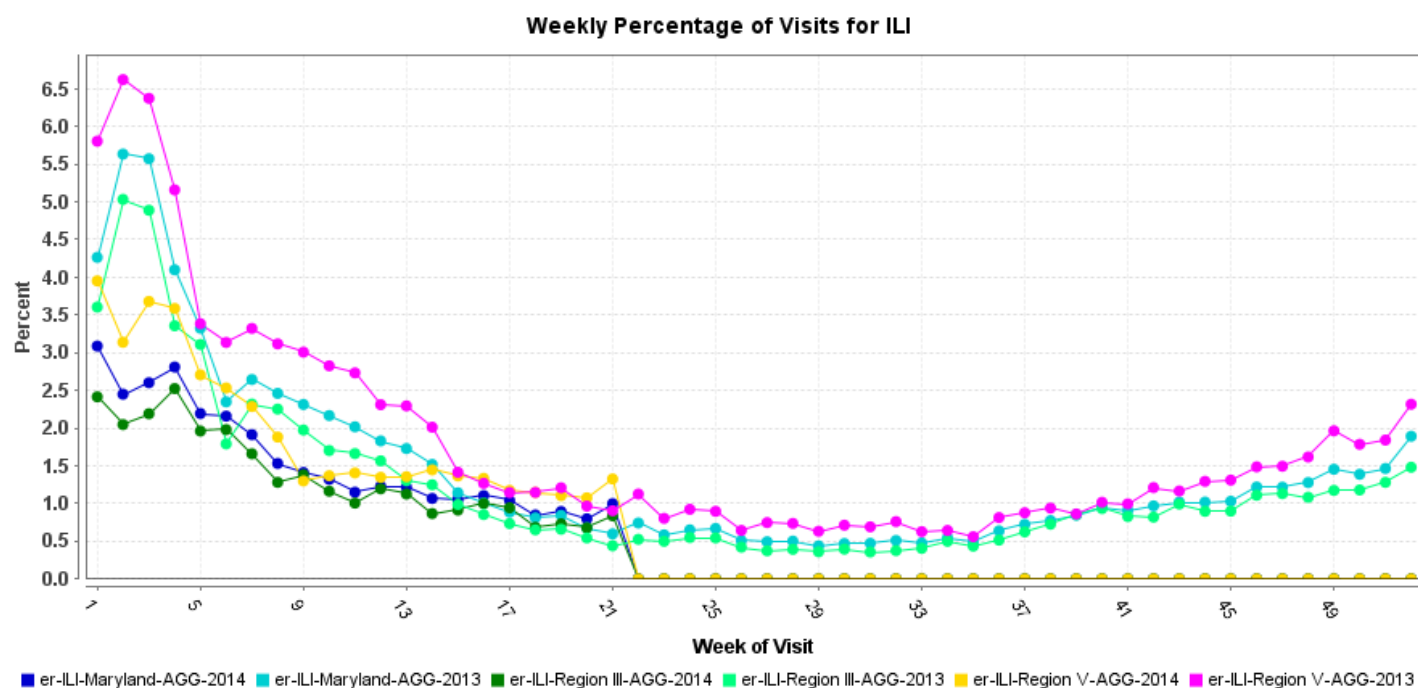
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 20 was: Widespread with Minimal Intensity.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

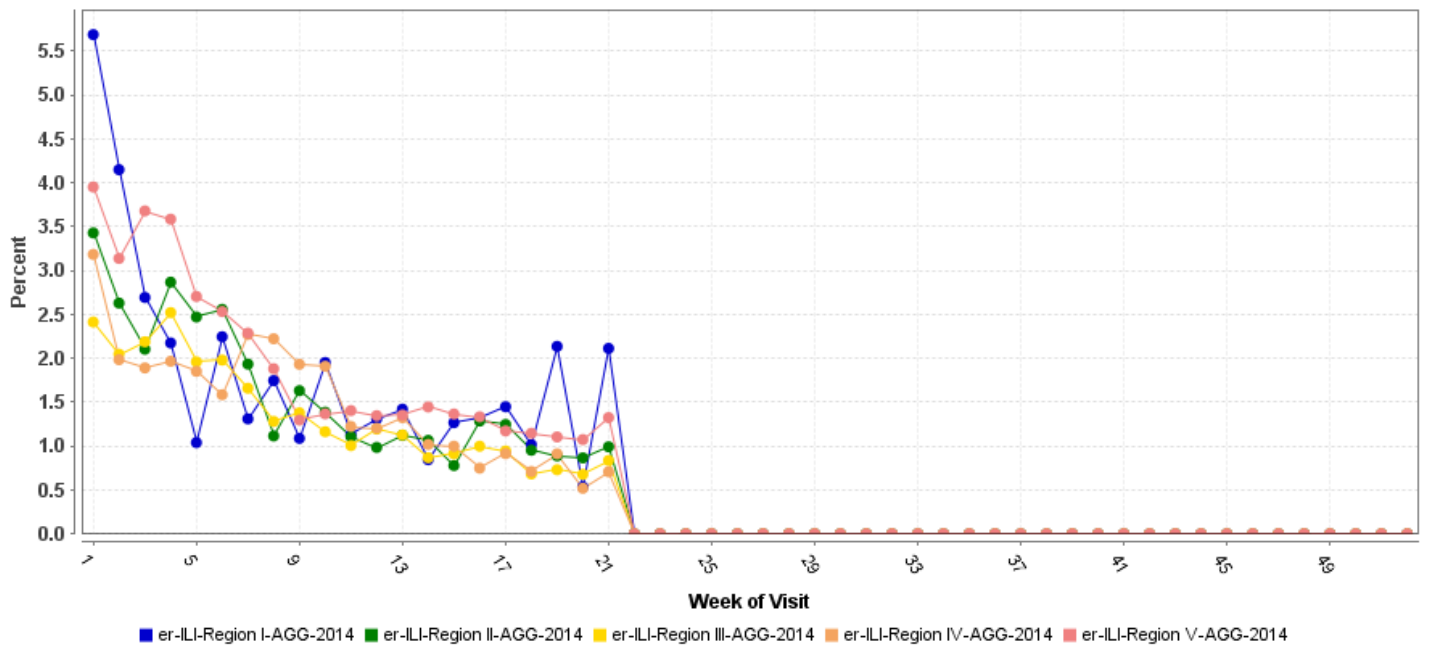
Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



* Includes 2013 and 2014 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total

Weekly Percentage of Visits for ILI

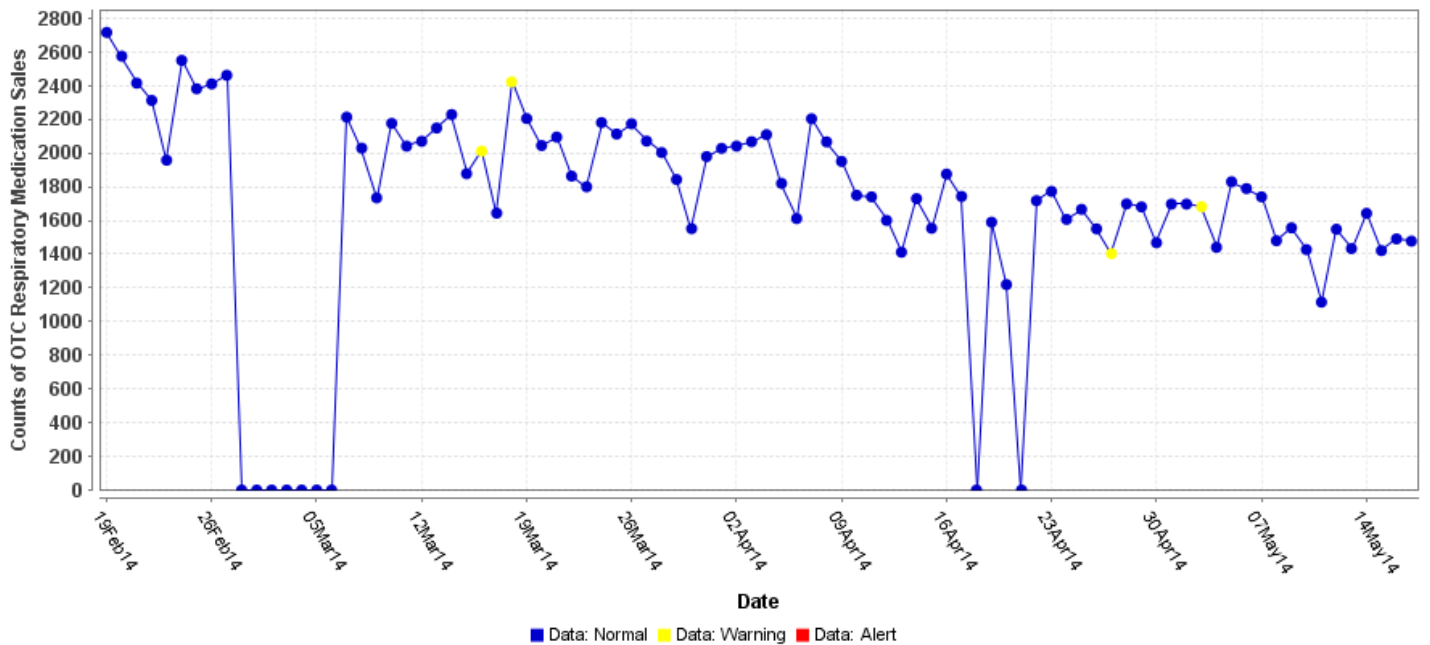


*Includes 2014 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.

OTC Respiratory Medication Sales



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of January 24, 2014, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 650, of which 386 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA (H7N9): On 12 May 2014, the National Health and Family Planning Commission (NHFPC) of China notified WHO of 5 additional laboratory-confirmed cases of human infection with avian influenza A(H7N9) virus. Details of the cases are as follows:

- A 23-year-old male from Leping City, Jiangxi Province. He had onset of symptoms on [14 Apr 2014] and was admitted to hospital on [27 Apr 2014]. He is currently in a mild condition. The patient had a history of exposure to live poultry.

- A 74-year-old female from Yueyang City, Hunan Province. She had onset of symptoms on [23 Apr 2014] and was admitted to a hospital on [29 Apr 2014]. She is currently in a severe condition. The patient had a history of exposure to live poultry.

- A 53-year-old female from Shenzhen City, Guangdong Province. She had onset of symptoms on [15 Apr 2014] and was admitted to a hospital on [28 Apr 2014]. She is currently in a mild condition. The patient had a history of exposure to live poultry.

- A 63-year-old male from Yanji City, Jilin Province. He had onset of symptoms on [27 Apr 2014] and was admitted to a hospital on [30 Apr 2014]. He is currently in a critical condition. No information was available on exposure.

- A 50-year-old male from Zhongshan City, Guangdong Province. He had onset of symptoms on [2 May 2014] and was admitted to a hospital on [6 May 2014]. He is currently in a critical condition. The patient had a history of exposure to live poultry.

NATIONAL DISEASE REPORTS*

E. COLI EHEC (MICHIGAN): 17 May 2014, A Grand Traverse region [Michigan] resident likely is the 6th Michigander diagnosed with E. coli illness in recent weeks. The woman lives in an area covered by the Benzie-Leelanau District Health Department. She recently traveled to Grand Rapids, Michigan, where she ate ground beef. An investigation is continuing, though, into how she contracted the illness, said Michael Collins, medical director for the Grand Traverse and Benzie-Leelanau health departments. "Cook your meat real well and avoid cross contamination," Collins said of basic safety steps that can help prevent E. coli illness. The Michigan Department of Community Health is investigating a cluster of recent illnesses caused by E. coli O157. 5 of the cases involve downstate residents ages 20 to 41. They came down with symptoms from 22 Apr to 1 May 2014. 3 of the patients were hospitalized, though none have developed a condition known as hemolytic uremic syndrome, which is a severe complication of E. coli O157 infection. No deaths were reported. The department of community health's Angela Minicuci said the agency is investigating the northern Michigan case. It is unclear if the woman's illness is caused by the same strains of E. coli documented downstate. Lab tests indicate the illnesses are linked to a common source, with ground beef the likely culprit. Each of the individuals ate undercooked ground beef at several different restaurants in multiple locations. "(The agency) is working with local health departments and the United States Department of Agriculture to determine the source of the ground beef and how widely it was distributed," community health officials said in a press release. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

C. PERFRINGENS (MISSOURI): 15 May 2014, Franklin County health officials estimate that more than 300 people got foodborne illness from gravy that was served at a recent wedding event. Tests of food and stool samples came back positive for Clostridium perfringens, said Tony Buel, epidemiology specialist with the Franklin County Health Department. About 100 people made reports to the county health department concerning the illness. Some said they were aware of others who got sick, and it was estimated that more than 300 were affected. About 750 people attended the [5 Apr 2014] wedding event at the Sullivan Eagles Hall, Buel said. Hours after the wedding event people woke up experiencing symptoms of abdominal cramps and diarrhea, Buel said. Symptoms can last 24 hours. Buel said the problem occurred when it took too long to cool the gravy down. That can cause bacteria growth and put toxins in food, he added. Health officials inspected the catering facility, which, Buel said, was clean. The caterer handled another event the same day and no illnesses occurred. Buel said he cannot recall another food poisoning incident in his 11 years with the health department that affected so many people. The state health lab tested the food and stool samples for norovirus, which came back negative. The state lab then forwarded the samples for further testing to the Centers for Disease Control in Atlanta, which confirmed the presence of Clostridium perfringens. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS*

E. COLI EHEC (ENGLAND): 17 May 2014, A health board has confirmed a "cluster" of 4 confirmed E. coli cases and say they are investigating another suspected case. NHS [National Health Service] Fife's Public Health Department is currently investigating the incidents within the Dunfermline area in Fife [Scotland]. The infection has been linked to Khushi's Indian Restaurant in the town. The confirmed cases are recovering at home, as is the suspected case. Dr. Margaret Hannah, NHS Fife deputy director of Public Health, said: "We are working closely with our partners in Environmental Health, Health

Protection Scotland and the Food Standards Agency to ensure that all appropriate safeguards are hygiene controls are in place. "The incubation period for this infection is as long as 14 days. Anyone who is experiencing symptoms including diarrhea, nausea, vomiting, bloody stools, stomach pain and fever should contact their GP or telephone NHS24 on 111." (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

EBOLA VIRUS DISEASE (WEST AFRICA): 16 May 2014, As of 15 May 2014, a total of 248 clinical cases of Ebola virus disease (EVD) has been recorded, including 171 deaths. Since the last update of 9 May 2014, there have been 5 new cases confirmed by ebolavirus PCR and no new deaths among the confirmed cases. Reclassification of cases, retrospective investigation, and harmonization of data have brought the total number of confirmed cases to 138, including 92 deaths; 67 probable cases, 57 deaths (3 new probable deaths in the community); and 43 suspected cases (22 deaths). The geographical distribution of clinical cases of EVD since the beginning of the outbreak is as follows: Conakry (50 cases, including 24 deaths), Guekedou (163/119), Macenta (22/17), Kissidougou (8/6), Dabola (4/4), and Djingiraye (1/1). The cumulative total of laboratory confirmed cases and deaths since the beginning of the outbreak is: Conakry (40 cases, including 20 deaths); Guekedou (83/60); Macenta (12/10); Kissidougou (2/1); and Dabola (1/1). There have been no new cases of EVD in Kissidougou since 1 Apr 2014, Macenta since 9 Apr 2014, and Conakry since 26 Apr 2014. In Djingiraye and Dabola, no new cases have been reported since the end of March 2014. If no additional cases are identified in Conakry, the observation period for those individuals identified through contact tracing will end on 17 May 2014. In Guekedou, the date of isolation of the most recent cases is 11 May 2014. A total of 480 contacts (5 in Conakry, 475 in Guekedou) are under follow up. The number of cases remains subject to change due to reclassification and consolidation of cases and laboratory data, enhanced surveillance activities, and contact tracing activities. Introduction of ebolavirus serology to test PCR negative clinical cases is also likely to change the final number of laboratory confirmed cases. There have been no new alerts in both Liberia and Sierra Leone. Liberia is preparing to host a cross-border meeting with Cote d'Ivoire and Sierra Leone and surveillance activities have been enhanced in districts bordering Guinea. WHO continues to support the Ministries of Health of Guinea and Liberia in their EVD prevention and control activities. As of 14 May 2014, 118 experts have been deployed to assist in the response. This includes 56 experts deployed through the global WHO surge mechanism, 35 international experts from among partner institutions of the Global Outbreak Alert and Response Network (GOARN), 10 externally recruited consultants, and 17 WHO staff who were locally repurposed. To date, 90 experts have been deployed to Guinea, 22 to Liberia, 2 to Sierra Leone, and 4 to the WHO Regional Office for Africa. An additional, 7 deployments are planned in the disciplines of medical anthropology, clinical case management, surveillance and epidemiology, laboratory services, logistics, and risk and media communications. WHO does not recommend that any travel or trade restrictions be applied to Guinea or Liberia based on the current information available for this event. (Viral Hemorrhagic Fevers are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

BRUCELLOSIS (ISRAEL): 13 May 2014, Five people were hospitalized at Emek Medical Center in Afula and another 4 were treated and discharged on Monday [14 May 2014] after being infected with brucellosis bacteria from drinking milk that had not been pasteurized or meat from unvaccinated animals. The patients were treated with antibiotics and given supportive care. Dr. Bibiana Hazan, who heads the hospital's infectious diseases unit, said the disease is transmitted to people by sheep, cows, and goats that have not been immunized against it. (Brucellosis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS (SPAIN): 12 May 2014, 53 students from a public school in Rafenbuyol (Valencia) between 3 and 12 years of age were affected by a condition compatible with food-borne illness. Of the 53 children, 28 have been taken care of in local health centers, and one was admitted in the Valencia Clinical Hospital, but his condition is not severe. Sources from the Health Council explained the current situation, and they mentioned that the Public Health Service had used the protocol for such events, starting with an epidemiological survey and analyzing samples taken in the center in order to find out the cause(s) for this occurrence. Results will be available in a few days, and it cannot be confirmed now whether this corresponds to a gastrointestinal infection, salmonellosis or any other condition, according to Public Health sources. The affected children, particularly the younger ones, developed fever, abdominal pain, and vomiting last Fri 9 May 2014, just as the Parent Union pointed out in its Facebook page, in which they advised parents to go to their local health center in case children develop the aforementioned symptoms. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

National and International Disease Reports are retrieved from <http://www.promedmail.org/>.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/> or follow us on Facebook at www.facebook.com/MarylandOPR.

Maryland's Resident Influenza Tracking System: <http://dhmm.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

Zachary Faigen, MSPH, REHS
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: Zachary.Faigen@maryland.gov

Anikah H. Salim, MPH, CPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: Anikah.Salim@maryland.gov

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	<p>ACUTE condition that may represent exposure to botulinum toxin</p> <p>ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy.</p> <p>ACUTE descending motor paralysis (including muscles of respiration)</p> <p>ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.</p>	Botulism
Hemorrhagic Illness	<p>SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola</p> <p>ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF</p> <p>ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria</p>	VHF
Lymphadenitis	<p>ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)</p>	Plague (Bubonic)
Localized Cutaneous Lesion	<p>SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia</p> <p>ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia</p> <p>INCLUDES insect bites</p> <p>EXCLUDES any lesion disseminated over the body or generalized rash</p> <p>EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease</p>	Anthrax (cutaneous) Tularemia
Gastrointestinal	<p>ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract</p> <p>SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis</p> <p>ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea</p> <p>EXCLUDES any chronic conditions such as inflammatory bowel syndrome</p>	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	<p>ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media)</p> <p>SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus</p> <p>ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis</p> <p>ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain</p> <p>EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE <i>acute exacerbation</i> of chronic illnesses.)</p>	<p>Anthrax (inhalational)</p> <p>Tularemia</p> <p>Plague (pneumonic)</p>
Neurological	<p>ACUTE neurological infection of the central nervous system (CNS)</p> <p>SPECIFIC diagnosis of acute CNS infection such as pneumococcal meningitis, viral encephalitis</p> <p>ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephalitis NOS, encephalopathy NOS</p> <p>ACUTE non-specific symptoms of CNS infection such as meningismus, delirium</p> <p>EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's</p>	Not applicable
Rash	<p>ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs)</p> <p>SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox</p> <p>ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem</p> <p>EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheic dermatitis, rosacea</p> <p>EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema</p>	Smallpox
Specific Infection	<p>ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal)</p> <p>INCLUDES septicemia from known bacteria</p> <p>INCLUDES other febrile illnesses such as scarlet fever</p>	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Syndrome	Definition	Category A Condition
Fever	<p>ACUTE potentially febrile illness of origin not specified</p> <p>INCLUDES fever and septicemia not otherwise specified</p> <p>INCLUDES unspecified viral illness even though unknown if fever is present</p> <p>EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome</p>	Not applicable
Severe Illness or Death potentially due to infectious disease	<p>ACUTE onset of shock or coma from potentially infectious causes</p> <p>EXCLUDES shock from trauma</p> <p>INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births</p> <p>EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths</p>	Not applicable

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

Toll Free 1-877-4MD-DHMH – TTY/Maryland Relay Service 1-800-735-2258
Web Site: www.dhmf.maryland.gov